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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/591,643	07/10/2007	Nobuyuki Suda	129294	2084
25944	7590	03/17/2011		
OLIFF & BERRIDGE, PLC P.O. BOX 320850 ALEXANDRIA, VA 22320-4850			EXAMINER ROGERS, MARTIN K	
			ART UNIT 1747	PAPER NUMBER
			NOTIFICATION DATE 03/17/2011	DELIVERY MODE ELECTRONIC

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

Notice of the Office communication was sent electronically on above-indicated "Notification Date" to the following e-mail address(es):

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<b>Office Action Summary</b>	<b>Application No.</b> 10/591,643	<b>Applicant(s)</b> SUDA, NOBUYUKI	
	<b>Examiner</b> MARTIN ROGERS	<b>Art Unit</b> 1747	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 22 February 2011.
- 2a) ☐ This action is **FINAL**.                      2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 1-6 is/are pending in the application.
- 4a) Of the above claim(s) 1 and 2 is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 3-6 is/are rejected.
- 7) ☒ Claim(s) 4 and 6 is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 05 September 2006 is/are: a) ☐ accepted or b) ☒ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All    b) ☐ Some \*    c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- |  |   |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)  | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftperson's Patent Drawing Review (PTO-948)  | 5) <input type="checkbox"/> Notice of Informal Patent Application                       |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)<br>Paper No(s)/Mail Date <u>7/23/2009, 12/21/2007, 11/20/2006</u> | 6) <input type="checkbox"/> Other: _____  |

## **DETAILED ACTION**

### ***Election/Restrictions***

1. Claims 1 and 2 are withdrawn from further consideration pursuant to 37 CFR 1.142(b), as being drawn to a nonelected method for producing a tire, there being no allowable generic or linking claim. Applicant timely traversed the restriction (election) requirement in the reply filed on 2/22/2011.

Applicant's election with traverse of claims 4-6 in the reply filed on 2/22/2011 is acknowledged. The traversal is on the ground(s) that the examination of the two groups together would not constitute a burden on the examiner because the two groups are sufficiently similar and because MPEP 803 states that when there is not an undue burden on the examiner, the claims of an application must be examined together. This is not found persuasive because there is a undue burden, due to the divergent field of search and the lack of unity of invention for the two sets of claims. The examiner would like to point out that MPEP 803 is concerned with applications filed under 35 USC 111(a) and is therefore not relevant to the present application.

The requirement is still deemed proper and is therefore made FINAL.

### ***Drawings***

2. Figure 4 should be designated by a legend such as --Prior Art-- because only that which is old is illustrated. See MPEP § 608.02(g). Corrected drawings in compliance with 37 CFR 1.121(d) are required in reply to the Office action to avoid

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abandonment of the application. The replacement sheet(s) should be labeled "Replacement Sheet" in the page header (as per 37 CFR 1.84(c)) so as not to obstruct any portion of the drawing figures. If the changes are not accepted by the examiner, the applicant will be notified and informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance.

### ***Claim Objections***

3. Claims 4 and 6 are objected to because of the following informalities: Claim 4 states that " $n = 1, 1.5, 2, 2.5, 3$ ," which makes it seem that the value " $n=1$ " is claimed twice. It appears (based on [0028] of the specification of the present application in which it is stated that the preferred values for " $n$ " are 1 or 1.5 or 3) that a small typographical error was made and that applicant intended to require --  $n = 1, 1.5, 2, 2.5, 3$  --. Claim 6 is objected to because it is dependent on claim 4. Appropriate correction is required.

### ***Specification***

4. The disclosure is objected to because of the following informalities: Paragraph's [0008], [0013], and [0028] all contain the same typographical error described above for claim 4 with regard to the possible values of " $n$ ." Appropriate correction is required.

### ***Claim Rejections - 35 USC § 103***

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

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(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

5. Claims 3 and 4 are rejected under 35 U.S.C. 103(a) as being unpatentable over Boyce et al. (USP 5996768).

In regards to claim 3, Boyce discloses a drum with two end plates (Figure 3: 26 and 28) with a series of profiled slats bridging the endplates and being fixed around the circumference of the end plates such that they form a continuous circumferential surface (Figure 5: 12). The slats have an arcuate surface (Figure 5: 12). Boyce suggests that a skilled artisan would consider making the drum from aluminum, but that this would not be optimal for drums which utilize quick release connections (Column 7, line 59 through Column 8, line 12). However, Boyce discloses that other connection mechanisms can be used, including bolts (Column 7, line 47). A skilled artisan would therefore find it obvious to make the drum from aluminum. The drum is capable of the intended use of the acting as a transfer drum.

In regards to claim 4, it is the examiner's position that the specific size of the profiled members will depend on a variety of factors, including the size and dimensions of the drum. It is considered to be within the ability of a skilled artisan to use routine experimentation to determine the optimum dimensions for creating the individual profiled members used to construct the drum.

Claims 5 and 6 are rejected under 35 U.S.C. 103(a) as being unpatentable over Boyce et al. (USP 5996768) as applied to claims 3 and 4 above, and further in view of Galchefski et al. (USP 5344519).

In regards to claims 5 and 6, Boyce discloses the use of a vacuum system (Column 2, lines 4) but does not disclose the use of a vacuum member with vacuum suction holes provided in the member.

Galchefski discloses that by using a vacuum member with vacuum suction holes in it to provide the vacuum openings in a drum, the member can be made of a separate, high-friction material which assists in retaining the object held on the drum and reduces the necessary vacuum pressure (Column 11, lines 41-47). Therefore, in order to reduce the vacuum pressure needed by the drum, a skilled artisan would find it obvious to use a vacuum member with holes in it as part of the vacuum system (as disclosed by Galchefski).

6. Claims 3 and 4 are rejected under 35 U.S.C. 103(a) as being unpatentable over Suda (Pre-Grant Publication 2003/0168152) in view of Boyce et al. (USP 5996768) and optionally (Byerley USP 5618374).

In regards to claim 3, Suda discloses a transfer drum (Figure 2: 12) with a cylindrical outer surface for use in constructing a tire component, but does not disclose how this drum is constructed.

Boyce discloses that by constructing the cylindrical surface of a drum from a pair of end plates (Figure 4a: 26 and Figure 3: 26,28) which are coaxially arranged and spaced at a predetermined distance such that the can be bridged by a circumferential series of straight profiled members bridging between which line the entire periphery of the end plates in abutment with each other (Figure 3: 9) and are fixedly connected to the end plate (Figure 4a: 42) such that an arcuate surface of the profiled members form a cylindrical surface with a continuous diameter (Figure 5: 12), the construction method for the drum can be made to be versatile, and efficient with reduced risk and expense when compared to other drum-manufacturing methods (Column 4, lines 15-30). Boyce suggests that a skilled artisan would consider making the drum from aluminum, but that this would not be optimal for drums which utilize quick release connections (Column 7, line 59 through Column 8, line 12). However, Boyce discloses that other connection mechanisms can be used, including bolts (Column 7, line 47). A skilled artisan would therefore found it obvious to make the drum from aluminum.

In any event, Suda does not disclose what material is used to make the drum, suggesting to one of ordinary skill in the art that any well known material for making a tire-handling drum would be suitable. Byerley discloses that the use of aluminum for making drum components is beneficial due to its low mass (Column 10, lines 64-66). Therefore, a skilled artisan would have found it obvious to make the drum of Suda out of aluminum for the benefit of maintaining a low weight, making the drum easier to handle (as disclosed by Byerly).

In regards to claim 4, it is the examiner's position that the specific size of the profiled members will depend on a variety of factors, including the size and dimensions of the drum. It is considered to be within the ability of a skilled artisan to use routine experimentation to determine the optimum dimensions for creating the individual profiled members used to construct the drum.

Claims 5 and 6 are rejected under 35 U.S.C. 103(a) as being unpatentable over Suda (Pre-Grant Publication 2003/0168152) in view of Boyce et al. (USP 5996768) and (Byerley USP 5618374)) as applied to claims 3 and 4 above, and further in view of Galchefski et al. (USP 5344519).

In regards to claims 5 and 6, Suda discloses the use of a vacuum system in fluid communication with the surface of the drum (Figure 2: 12b) but does not disclose the use of a vacuum member with vacuum suction holes provided in the member.

Galchefski discloses that by using a vacuum member with vacuum suction holes in it to provide the vacuum openings in a drum, the member can be made of a separate, high-friction material which assists in retaining the object held on the drum and reduces the necessary vacuum pressure (Column 11, lines 41-47). Therefore, in order to reduce the vacuum pressure needed by the drum, a skilled artisan would find it obvious to use a vacuum member with holes in it as part of the vacuum system (as disclosed by Galchefski).



***Conclusion***

Any inquiry concerning this communication or earlier communications from the examiner should be directed to MARTIN ROGERS whose telephone number is 571-270-7002. The examiner can normally be reached on Monday through Thursday, 7:30 to 5:00, and every other Friday, 7:30 to 4:00.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Richard Crispino can be reached on 571-272-1226. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Martin Rogers/

/Richard Crispino/  
Supervisory Patent Examiner, Art Unit 1747